

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Kyoung-Oh KIM et al.

Application No.: 10/594,965

Filed: September 29, 2006

Docket No.: 129621

For: A CONTROL APPARATUS FOR AN INTERNAL COMBUSTION ENGINE CAPABLE  
OF PRE-MIXED CHARGE COMPRESSION IGNITION

INFORMATION DISCLOSURE STATEMENT

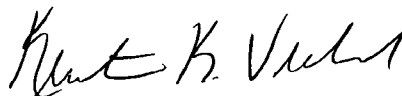
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. An English language Abstract of one or more non-English language reference is attached hereto. See References 1-5.
- ☒ 3. A computer-generated English language translation of one or more Japanese Patent Publication cited herein has been obtained from the website of the Japanese Patent Office (<http://www.jpo.go.jp>), and is attached, but has not been reviewed for accuracy. See References 1-5.

Respectfully submitted,



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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /ES/

|   |  |   |  |                                    |  |                               |  |
|---|--|---|--|------------------------------------|--|-------------------------------|--|
| Form PTO-1449<br>(REV. 1/06)  |  | US Dept. of Commerce<br>PATENT & TRADEMARK OFFICE |  | ATTY DOCKET NO.<br>129621          |  | APPLICATION NO.<br>10/594,965 |  |
| INFORMATION DISCLOSURE STATEMENT<br><br>(Use several sheets if necessary) |  |   |  | APPLICANTS<br>Kyoung-Oh KIM et al. |  |                               |  |
|   |  |   |  | FILING DATE<br>September 29, 2006  |  |                               |  |

| U.S. PATENT DOCUMENTS |          |                 |      |      |
|-----------------------|----------|-----------------|------|------|
| Examiner Initials     | Cite No. | Document Number | Date | Name |
|                       |          |                 |      |      |

| FOREIGN PATENT DOCUMENTS |          |                  |            |         |                       |                          |
|--------------------------|----------|------------------|------------|---------|-----------------------|--------------------------|
| Examiner Initials        | Cite No. | Document Number  | Date       | Country | With English Abstract | With English Translation |
|                          | 1.       | JP A 2001-263067 | 9/26/2001  | Japan   | X                     | X                        |
|                          | 2.       | JP A 2001-303956 | 10/31/2001 | Japan   | X                     | X                        |
|                          | 3.       | JP A 11-101127   | 4/13/1999  | Japan   | X                     | X                        |
|                          | 4.       | JP A 2001-254660 | 9/21/2001  | Japan   | X                     | X                        |
|                          | 5.       | JP A 2001-164979 | 6/19/2001  | Japan   | X                     | X                        |

| OTHER DOCUMENTS   |          |  |
|-------------------|----------|--|
| Examiner Initials | Cite No. | (Including Author, Title, Date, Pertinent Pages, etc.)   |
|                   | 6.       | Jari Hyvonen et al., "Supercharging HCCI to Extend the Operating Range in a Multi-Cylinder VCR-HCCI Engine,"<br>SAE International, October 27, 2003 (No. 2003-01-3214).  |
|                   | 7.       | Nigel F. GALE et al., "HCCI Combustion Control in a Multi-Cylinder Engine Through Dual Fuel Operation," JSAE Spring<br>Convention Proceedings, No. 64-01, pp. 1-4, May 23, 2001.   |
|                   | 8.       | A. Groenendijk et al., "Mixture Formation and Combustion Control for Low Emission DI Diesel Combustion with HCCI-<br>Characteristics," THIESEL 2002 Conference on Thermo- and Fluid-Dynamic Processes in Diesel Engines, pp. 145-158,<br>September 10, 2002. |
|                   | 9.       | Tanet Aroonsrisopon et al., "Comparison of HCCI Operating Ranges for Combinations of Intake Temperature, Engine Speed and<br>Fuel Composition," Society of Automotive Engineers, June 3, 2002 (No. 2002-01-1924).  |
|                   | 10.      | Ryuichi Tominaga et al., "Effects of Heterogeneous EGR on the Natural Gas Fueled HCCI Engine Using Experiments, CFD and<br>Detailed Kinetics," SAE International, March 8, 2004 (No. 2004-01-0945).  |
|                   | 11.      | Toshio Shudo et al., "HCCI Combustion of Hydrogen, Carbon Monoxide and Dimethyl Ether," Society of Automotive<br>Engineers, Inc., March 4, 2002 (No. 2002-01-0112).  |
|                   | 12.      | Tomonori Urushihara et al., "Expansion of HCCI Operating Region by the Combination of Direct Fuel Injection, Negative Valve<br>Overlap and Internal Fuel Reformation," SAE International, March 3, 2003 (No. 2003-01-0749).                                  |

|                            |                 |
|----------------------------|-----------------|
| EXAMINER                   | DATE CONSIDERED |
| /Erick Solis/ (02/24/2008) |                 |

|           |   |
|-----------|---|
| Examiner: | Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |
|-----------|---|

Date: November 29, 2006

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /ES/